In contrast to traditional individual ship design and development, the HYDRA project provides a platform-based approach and cost-effective means of developing a fleet of vessels with variable primary roles.

The platform design enables a client to select, at build, a vessel variant from an assortment of pre-determined primary roles. The variants are a research vessel capable of deploying large equipment via various L6R systems, a SUBSAR vessel capable of deploying the NSRS of future versions of the system, a coast guard vessel capable of conducting broad maritime surveillance and boarding operations. This platform-based ship design results in savings to the shipyards in both design and production costs. Such savings can then be passed on to the customer. Moreover, based on the commonality in design and equipment, clients can expect to experience additional fleet-wide through life cost savings in areas such as operations, maintenance, training and spare parts. Shipyards will be able to produce platform-based vessels faster and with less risk, as most first class issues can be resolved for all potential variants following construction of the first vessel. Material and long-lead procurement costs will also be reduced as commonality in machinery will allow for high volume orders to vendors and suppliers.

Finally, the designer need only design one platform capable of being built for various variants. This reduces design time but constitutes a major challenge in producing an optimum platform for its designated variants. Such a challenge must be met with innovation and skilled engineering.